

2-year rain totals since 1897 for the Rio Grande Valley. Long term average is the gray line, just below 50 inches. Amazing numbers, indeed: The period from April 2011 to March 2013 broke the previous record, set during the April 1988 to March 1990 period, *by 6.31 inches!* Value from April 2002-March 2004 is the 21st century high accumulation thus far; value in orange is the prior low.

Mid April 2013 Quicklook: The 2011-2013 Drought: Worse Became Worse in March

Only Sprinkles for Most of the Valley for the first half of April

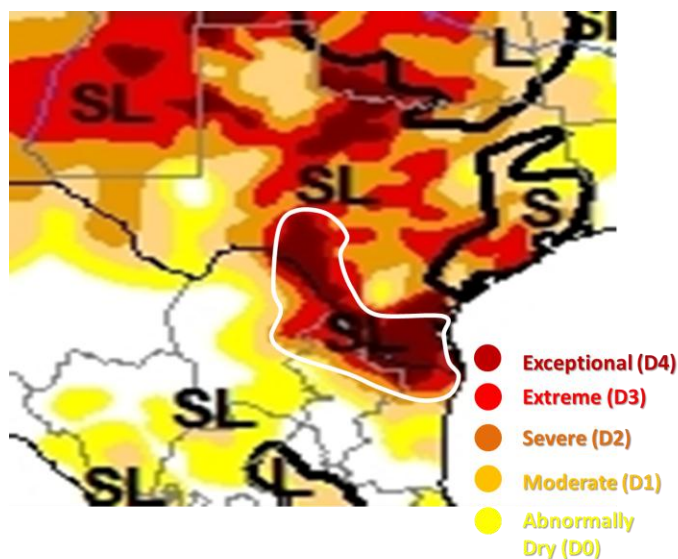
The pattern that dominated March with repeated fronts and associated surges of very dry air changed ever so slightly through the first half of April, but not enough to bring appreciable rainfall to the Rio Grande Valley. Increasing sun angle and spring warming brought daytime temperatures into the 80s and 90s, with a few century marks appearing across the Rio Grande Plains on the 9th, 15th, and 16th. Two fronts nudged the temperature – and humidity – down on the 3rd through the 5th and again on the 10th through 12th. Two individual events painted the corners of the Texas Gulf border region with localized rain. One storm dropped 1.30" of rain along the Starr/Zapata/northern Tamaulipas line on the 3rd, but the storm rapidly dissipated before reaching the mid and lower Valley. Another band swirled in behind a fairly vigorous April front overnight on the 10th and early on the 11th, leaving 0.55 inches behind at Port Mansfield and a tenth (0.10) at San Manuel. Elsewhere, rain was measured by drops, and in places where Exceptional Drought (D4) has dominated since 2012 (Hidalgo, Brooks, and Kenedy County), the soil became even dustier.

The map at right tells the dry April tale, for most. Green areas indicate an average of 0.5 to 1.5 inches across a portion of the Rio Grande River basin on April 3rd; green bands showed showers which dropped around 0.5 inches surrounded by little or no rainfall, mainly across the King Ranch. This rainfall, much which fell as melted hail, was of little efficiency – a ripple in a sea of dry.

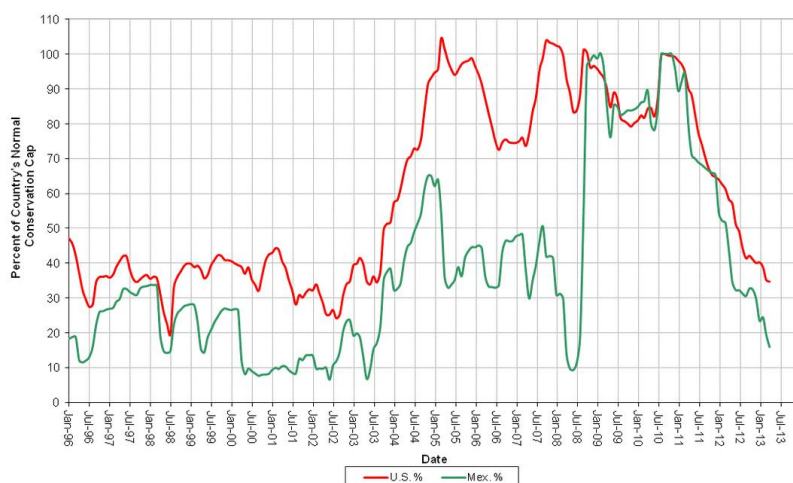
North American Drought

The North American Drought Monitor indicated Exceptional Drought had crossed the U.S./Mexico border, covering nearly all of northern Tamaulipas and a sliver of northeastern Nuevo Leon at the end of March (below left). The area of Exceptional Drought, overlaid with the rich agricultural industry of the Rio Grande Valley and a population of more than 2.6 million and growing, required irrigation flows from what little water remains in most U.S. and Mexican reservoirs in early 2013. Combined levels of Amistad and Falcon International Reservoirs are likely to fall below prior low conservation marks last seen in the early 2000s (below right).

Brownsville, TX (BR0): Current Month to Date Observed Precipitation
Valid at 4/16/2013 1200 UTC– Created 4/16/13 21:58 UTC



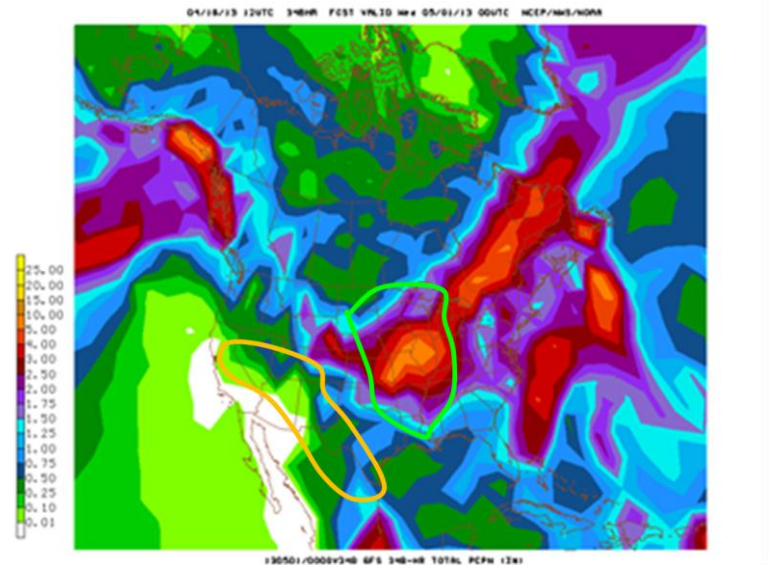
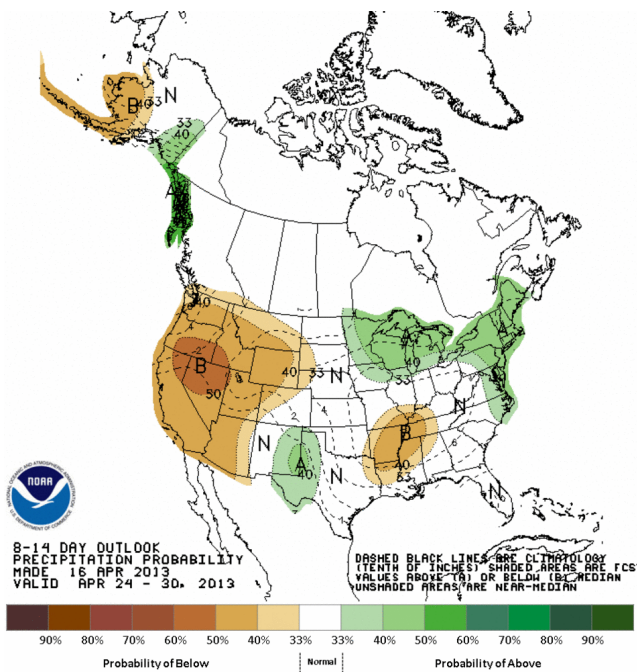
Amistad-Falcon Percent of Conservation Capacity



What's Next?

A full update, including the May through July temperature, precipitation, and drought outlook, will be available by April 22nd or 23rd. Until then, the consensus of extended forecasts suggest limited rainfall – if any – through April 25th, followed by some potential for scattered thunderstorms to develop across the northern sections of the Sierra Madre Oriental into the Texas Big Bend Region just prior to the end of the month. Confidence remains very low on this outcome; unless stationary storms can dump several inches or more of rainfall into the reservoir-feeding rivers of Mexico and the U.S., the impact on water levels will be marginal to nil.

No matter the outcome, the water crisis will continue, and everyone should consider steps to conserve water each and every day. Conservation is critical to ensuring that some water comes out of taps of a growing number of communities as the heat of late spring turns into the swelter of early summer.



Above left: Precipitation Probability for April 24-30, 2013, issued April 16th. Area in green across West Texas indicates a 33 to 42 percent chance for above average precipitation in these areas for the seven day period; however, average precipitation in the West Texas/Pecos region is less than 0.25 inch for late April. **Right:** The Global Forecast System model from 7 AM CDT April 15th total precipitation forecast through the end of April (14 day forecast). Area outlined in green suggests 4 to 8 inches or more during the period, which would further improve drought conditions for the Mid-Mississippi Valley. Area outlined in orange suggests less than an inch of precipitation, which would do little to improve the overall drought situation when combined with increasing heat and evaporation on most days.